

St. Croix's Terra II Project Expands Air, Water, and Soil Testing

13 air quality monitors installed across the island, water testing in high demand, and soil testing set to begin with a focus on farms and community health.

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On Tuesday, the executive director for the St. Croix Environmental Association Jennifer Valiulis provided an update on Terra II, an environmental justice project funded with grant money from the Environmental Protection Agency.

“Terra II...collects unbiased community source data on St. Croix’s air, water, and soil quality,” Ms. Valiulis explained. However, it goes beyond merely a monitoring and testing project. “We are also very much about giving information to the community and talking about what monitoring is and what it means and what the data means,” she clarified. “A lot of it is about fostering better

understanding of what monitoring is and how we can use it for advocacy,” Ms. Valiulis continued.

Developing this understanding is important because “between climate change and the pollutants we are seeing increasing risks to our health because of potentially diminished quality of air, water and soil,” Ms. Valiulis said. “The overall goal is to build a network of citizen scientists...that can advocate for community health and environmental justice,” she declared.

Thus far, in the approximately 18-month old project, 13 air quality monitors have been installed around the island of St. Croix, providing information on air quality based on readings of particulate matter, pressure, temperature, humidity, and other factors. The monitors, part of a global network, upload near-real time data to the internet, providing snapshots on air quality every 10 minutes or so. The differences in readings between clear days and days impacted by Sahara dust is starkly visible using the system, Ms. Valiulis said by way of example. “It’s a pretty intuitive way of looking at air quality and where it stands...this information helps us protect ourselves a little better.”

With three remaining sensors yet to be installed, Ms. Valiulis says the project would like to connect with interested persons in their higher-priority areas: Sion Hill and Sion Farm, Golden Grove, Bethlehem, Whim, Mount Pleasant West, La Grange, and La Grande Princesse. People who live in these areas, with strong, stable Wi-Fi and a regular supply of electricity are encouraged to contact the project to potentially receive a monitor for their location.

Meanwhile, the Terra II project continues to engage in water quality testing of cisterns and wells for high levels of bacteria. Ms. Valiulis noted that funding limitations have prevented the expansion of that testing to the municipal water supply. Community interest in this aspect of the project is high. “We have...filled up all the spots for those, and have a waiting list,” Ms. Valiulis noted.

Soil quality testing is yet to come, she informed. Once supplies are ordered and received, the project expects to conduct at least 25 soil tests for heavy metals and hydrocarbons in different locations. “We are doing not just homes, but also farms here, so that we can understand better the soil quality in places where we get our food from,” Ms. Valiulis explained. She indicated that there were still five available slots, and encouraged those interested in having their soil tested to reach out.

Outreach efforts, now that the testing work is well underway, will begin to ramp up, said Ms. Valiulis. “We will be trying to do more presentations in the communities. We will be at the Ag fair,” she disclosed. “You can find us at the VI Good Food Coalition table.” Community group meetings will continue, she said, and welcomed invitations from organizations that may be interested in hearing more about the project.

Terra II is a joint effort between the St. Croix Environmental Association, Crucian Heritage and Nature Tourism, and the VI Good Food Coalition, with the University of the Virgin Islands providing testing support. The EPA grant that funds the project is being administered by the St. Croix Foundation.